



Health-Literate Youth: Evolving Challenges for Health Educators

Joyce V. Fetro

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Across the country for the last several years, health literacy has become a “buzz word”—a major topic of discussion. In 2008, the American Association for Health Education approved a position statement on health literacy.¹ As a health educator since 1971 and after reading article after article about math literacy, reading literacy and science literacy, I think it's about time! Before delivering my AAHE Scholar Address in April 2010, a Google search for the words “health literacy” identified 5,120,000 and 988 videos. On June 30, 2010, a new Google search for “health literacy” identified 20,800,000 and 1,300 videos. Clearly, health literacy continues to be an important concern across the country. And, health educators in all settings acknowledge that health literacy is a key determinant of health outcomes, has a major impact on health disparities, and most important, should be a fundamental part of general education.

Although it is important that all individuals become health-literate, my comments are focused on youth because most of my professional work has centered within school settings working with children and youth from ages 6-18 years. More important, I believe that is where we must begin, and the earlier, the better. Hopefully by beginning on the first day of kindergarten and continuing through high school graduation, we can make a difference. I believe health-literate youth will grow up to be health-literate adults who will be able to make positive

health-related decisions for themselves and the parents/guardians for whom they likely will become primary caregivers. In my discussion, I will address what I see to be some evolving challenges for health educators working with youth as well as some possible strategies for addressing them.

EVOLVING CHALLENGE #1: UNDERSTANDING HEALTH LITERACY

“To begin with an end in mind means to start with a clear understanding of your destination.”^{2(p.98)} Moreover, as Eleanor Roosevelt said, “Understanding is a two-way street.” Before we, as health educators, can facilitate understanding of health literacy, we must truly understand it ourselves.

So, what is health literacy? Does the meaning of health literacy vary from person to person, organization to organization and location to location? Why is health literacy important? What is implied when we say someone is health-literate? How does health literacy work? What are the potential benefits of health literacy and the potential consequences of not being health literate? To what other concepts are health literacy connected? How do we see health literacy in relation to our work in health education, health promotion, risk reduction, disease prevention and health care reform? Finally, how do we measure health literacy? What does a health-literate person know and what is a health-literate person able to do?

Clearly, understanding (as a concept)

is complex; it is much broader than mere knowledge. Moreover, there are many different ways of understanding. Like a die, understanding is multi-faceted.³ When one truly understands an idea or concept, he/she can explain it, can interpret it and can apply it; he/she has perspective, can empathize and has self-knowledge.³ So, let us examine health literacy in each of its facets.

Understanding Facet #1: Explanation. This first facet is basic—what is health literacy and what is it not? Initially, we must define health. On more than one occasion, when sharing my profession (i.e., health educator) with a person I did not know, the first question I was asked (focusing on the physical) is “Oh, what sport do you play?” Most professionally-prepared health educators agree that health is a dynamic process of achieving one's potential in several inter-related dimensions. In the literature and in multiple textbooks, health has been portrayed as a continuum, a star, a wheel, or one of many other geometric shapes. Regardless of the model used, when we talk about health literacy, we must not limit our discussions to physical health and accessing the (physical) health care system; we must remember to address all dimensions of health—physical, emotional, mental, social, and spiritual.

Joyce V. Fetro is professor and chair in the Department of Health Education and Recreation, Southern Illinois University, Carbondale; E-mail: jfetro@siu.edu.



Then, we must define literacy—the foundation of health literacy. About one-third of the adult population in the United States has limited literacy.⁴ Typically literacy is thought of as one's being able to read and write, but again, it is more complex than we think. Two generally accepted definitions of literacy are: "A person's ability to read, write, speak, and compute and solve problems at levels necessary to function on the job and in society, achieve one's goals, and develop one's knowledge and potential"⁵ and "The ability to identify, understand, interpret, create, communicate, compute and use printed and written materials associated with various contexts...a continuum of learning"⁶ We need to keep these basic definitions in mind as begin our discussion about health literacy.

In Healthy People 2010,^{7,8} health literacy was defined as the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions. We, as health educators actually led the way with our National Health Education Standards⁹ definition—the capacity of individuals to obtain, interpret and understand basic health information and services and the competence to use such information and services in ways which enhance health. The slight, but important, difference in these two definitions is in the word competence; it is not enough to obtain, process and understand basic health information; young people need to have a level of proficiency to use that basic health information to promote their health and that of their families and communities.

Beyond defining health literacy, we need to be able to explain why health literacy is important and the personal benefits as well as the consequences of not being health literate. And, when we are working with youth, we have to stay in the NOW; they really don't care about long-term consequences 20 years down the road. Adolescents truly believe that, by then, they will quit smoking, control their drinking, and increase their physical activity, and so on.

More than 90 million people (one-half of all American adults) have difficulty

Table 1. Types of Literacy Defined⁴

Prose literacy: The knowledge and skills needed to perform prose tasks (i.e., to search, comprehend and use information from continuous texts). Prose examples: editorials, news stories, brochures and instructional materials.

Document literacy: The knowledge and skills needed to perform document tasks (i.e., to search, comprehend and use information from non-continuous texts in various formats). Document examples: job applications, payroll forms, maps, tables and drug/food labels.

Quantitative literacy: The knowledge and skills needed to perform quantitative tasks (i.e., to identify and perform computations, either alone or sequentially, using numbers embedded in printed materials). Quantitative examples: balancing a checkbook, completing an order form, calculating interest on a loan.

understanding and acting upon health information.¹⁰ And, as is well documented, low health literacy is correlated with poor health, less ability to care for self and others and increased use of health care services... leading to economic consequences to society.⁴ We must work with our youth now, so that when they become health-literate adults in the future.

Understanding Facet #2: Interpretation. This facet has to do with "meaning." What does it mean to be literate? There are different types and levels of literacy with corresponding skills/abilities: prose literacy, document literacy and quantitative literacy⁴ (Table 1). And, what does it really mean to be health literate? First, a complex array of skills are necessary to be health-literate, including (1) promoting/protecting health and preventing disease; (2) understanding/interpreting/analyzing health information; (3) applying health information over a variety of life events/situations; (4) navigating the health care system; (5) actively participating in encounters with health-care professionals and workers; (6) understanding/giving consent; and (7) understanding/advocating for rights.¹⁰ Second, health literacy is measured in three domains: the prevention domain (activities associated with maintaining/improving health, preventing disease and self-care/self-management); the clinical domain (activities associated with health-care provider interactions); and the navigation of the health care system domain (activities re-

lated to understanding health insurance and public assistance programs).⁴ Finally, if we are true to our definition of health, it relates to all health dimensions—physical, mental, emotional, social and spiritual health.

A health-literate person is a self-directed learner, a critical thinker and problem solver, an effective communicator and a responsible and productive citizen. A health-literate person⁹ has functional knowledge and essential skills related to key health areas¹¹ (Table 2). Do we, as health educators, truly understand the national health education standards and know how our current educational strategies need to change so that youth with diverse learning styles and multiple intelligences can become health literate? In today's world, a health-literate young person is able to take care of him or herself—physically, emotionally, socially, mentally and spiritually. They understand the concept of risk and can fill out complex forms, locate health care providers and health-related services, ask important clarifying questions of his/her physician or nurse, understands not only how to take medicines, but potential side effects and interactions, and advocates for his/her health and that of his/her family and community. Are we really preparing our youth to be successful at these important tasks?

Understanding Facet #3: Application. This facet involves being able to use health-related knowledge and skills in our daily lives—both personally and professionally.

**Table 2. National Health Education Standards¹⁰**

Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.

Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.

Standard 3: Students will demonstrate the ability to access valid information and products and services to enhance health.

Standard 4: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.

Standard 5: Students will demonstrate the ability to use decision-making skills to enhance health.

Standard 6: Students will demonstrate the ability to use goal-setting skills to enhance health.

Standard 7: Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

Standard 8: Students will demonstrate the ability to advocate for personal, family, and community health.

Are we as health literate as we need to be? I often question my level of health literacy. Can we apply what we know and understand about health literacy as we prepare health educators entering the field today? Do we incorporate strategies in our courses to help our students understand the importance and meaning of health literacy in all its complexities? Do we instruct students in a way that will prepare them to work with youth related to the national health education standards.

Are we preparing health-literate youth in our schools? Just because today's youth have had what I consider to be a token amount of health education, can we assume that their health classes addressed health education standards¹¹ and integrated characteristics of effective programs¹² (Table 3)? Will future teens and young adults be able to consciously reduce their personal health risks by wearing their seatbelts, not drinking and driving, using protection during sexual intercourse, and so on? Will they be able to make informed health-related decisions about not only smoking tobacco and using other substances, but also using over-the-counter drugs, making healthy food choices

and purchasing health care products? Will they be able to manage their health care and that of their parents? And, will they be able to access accurate and reliable health information and community resources?

Youth need multiple opportunities to learn key content and practice personal and social skills as described in the National Health Education Standards.¹¹ In the amount of time that is typically afforded health education during 12+ years of education, we are lucky if most key health concepts can be covered and understood. Sadly, only 6.4% of elementary schools, 20.6% of middle schools and 35.8% of high schools required instruction in the recommended 14 health areas.¹²

Understanding Facet #4: Perspective. This facet is about understanding multiple perspectives (i.e., looking at health issues and problems in different ways based on the group of individuals with whom we are working). In 1933, Dewey emphasized that one needed to see things in relation to other things, to note how they operate or function, to realize what are the causes and what consequences follow.¹⁴

The Institute of Medicine report em-

phasized that health literacy is a shared function of social and individual factors.^{10,p.4} That is, an individual's literacy skills and capacities are mediated by his/her education, culture and language. So, as we move forward to enhance health literacy, we must consider three contexts: the culture and society, the educational system and the health care system.

Culture reflects shared ideas, meanings, values and practices of a group. Cultural behaviors are socially learned and continually evolving; culture influences behavior often unconsciously. If we are working with youth, we need to understand their culture—the shared ideas, meanings, values and practices of today's adolescents. Over the past year, I have had numerous conversations with colleagues about today's adolescents—who are ever evolving and challenging teachers at all levels. Conversations included phrases like: sense of entitlement, lack of independence, lack of responsibility, negative attitude, lack of self-esteem...and the list goes on. So...the question is: What is going on with adolescents?

We know a great deal is going on in this developmental stage of adolescence. It is a time of incredible developmental growth, when youth have their feet tenuously planted between childhood and adulthood. Risk-taking is a normal part of adolescent development, but can today's youth experiment and explore without concern related to long-term serious consequences to their health and future goals?

Twenty years ago, Code Blue,¹⁵ a report of the National Commission on the Role of Schools and the Community in Improving Adolescent Health, stated: "For the first time in the history of this country, young people are less healthy and less prepared to take their places in society than were their parents. And this is happening when our society is more complex, more challenging and more competitive than ever before."¹⁵ I believe this quote is still valid today. As a result of Code Blue, the Centers for Disease Control and Prevention's Division of Adolescent and School Health began monitoring youth risk behaviors.¹⁶ Although significant



progress has been made in decreasing most health-risk behaviors, age of initiation of some behaviors has decreased. And, many of these young adolescents have not yet developed the personal and social skills needed to make health-promoting decisions.

Because of the No Child Left Behind Act,¹⁷ schools are limiting instruction in classes where these health-related skills typically are developed to focus on literacy in core curricula. Yet, 26% of 8th graders are below basic literacy in reading,¹⁸ 27% are below basic literacy in mathematics,¹⁹ and 41% are below basic literacy in science.²⁰ The National Center for Education Statistics reported that 26.8% of freshmen did not complete four years of high school. Of those who did finish, 35% don't go on to college.²¹ How can we, as health educators, promote health literacy, when basic literacy—its foundation—is limited? And how can we reach out-of-school youth with health education before they become adults?

The education system, the second context of health literacy, is complex. But, in a nutshell, what is happening in our schools is influenced by national policy written by legislators who likely have not been in a school since they were teenagers. The education system is controlled and funded by states, several of which have decreased funding to schools, resulting in teacher layoffs and larger classes. These limited resources have led to eliminating programs that are considered to be non-essential. Because of the No Child Left Behind Act,¹⁷ teaching toward critical thinking has been replaced by “teaching to the test.” Moreover, many teachers responsible for teaching core curricula are not health literate. Although these last statements are generalities and do not apply to all schools, the proportion of schools where these shifts are occurring is increasing.

The most recent School Health Programs and Policy Study¹³ reported that 75% of states have adopted policy that requires schools to follow the national health education standards or state health education standards. But, how can that occur when only 13% of elementary teachers and 37% of middle and high school teachers had any professional

Table 3. Characteristics of Effective Health Education Curricula¹²

Reviews of effective programs and curricula and input from experts in the field of health education have identified the following characteristics of an effective health education curriculum:

- Focuses on specific behavioral outcomes.
- Is research-based and theory-driven.
- Addresses individual values and group norms that support health-enhancing behaviors.
- Focuses on increasing personal perceptions of risk and harmfulness of engaging in specific health risk behaviors and reinforcing protective factors.
- Addresses social pressures and influences.
- Builds personal competence, social competence and self efficacy by addressing skills.
- Provides functional health knowledge that is basic, accurate and directly contributes to health-promoting decisions and behaviors.
- Uses strategies designed to personalize information and engage students.
- Provides age-appropriate and developmentally-appropriate information, learning strategies, teaching methods and materials.
- Incorporates learning strategies, teaching methods and materials that are culturally inclusive.
- Provides adequate time for instruction and learning.
- Provides opportunities to reinforce skills and positive health behaviors.
- Provides opportunities to make positive connections with influential others.
- Includes teacher information and plans for professional development and training that enhance effectiveness of instruction and student learning.

preparation in health education?

The health care system is equally as complex. Although some schools have school-based clinics, many schools have limited health service professionals, where nurses, counselors and other practitioners are only available at certain times on certain days. Most youth do not have the skills to navigate the health care system with its layers of bureaucracy and numerous forms and documents with instructions difficult to understand. And, more importantly, are practitioners trained to be youth-friendly?

Understanding Facet #5: Empathy. This facet refers to one's ability to walk in someone else's shoes, to embrace their insights and feelings. The first step, I believe, is remembering what it was like to be an adolescent. For some of us—me included—that was a long time ago. And society has changed incredibly in the interim. Schools were different, families were different and communities were different. But, somehow

we made it. When the daily news focuses on unemployment rates, budget deficits and lack of funding for youth programs, how can we expect youth to believe they have a future to look forward to?

Understanding Facet #6: Self-knowledge. This facet is described as the “wisdom to know one's ignorance and how one's patterns of thought and action inform as well as prejudice understanding.”^{3(p. 100)} “All understanding is ultimately, self-understanding... A person who understands, understands himself. Understanding begins when something addresses us. This requires the fundamental suspension of our own prejudices.”^{22(p. 266)} This facet is for each of us to interpret in his/her own way.

EVOLVING CHALLENGE #2: COMPETING INITIATIVES

We are all familiar with the No Child Left Behind Act (NCLB)¹⁷ (or as my colleagues in Hawaii like to say “No Teacher



Left Standing"). NCLB has a deadline of 2014 for all students in all public schools to achieve "proficiency" in basic subjects. It focuses on four areas: academic achievement, quality teachers and paraprofessionals, a safe and learning environment and high school graduation. Who could argue with those objectives? Who would want to leave even one child behind? This education initiative, however, continues to have a tremendous impact by eliminating or limiting health education, physical education and other youth programming in schools.

EVOLVING CHALLENGE #3: RESPONDING TO HEALTH CRISES (AKA... DISEASE OF THE DAY APPROACH)

This past fall, the outbreak of H1N1 interrupted programs in schools and communities. On a regular basis, categorical health initiatives, like adolescent suicide prevention or childhood obesity, often drive programming away from more comprehensive approaches in health education. As with any crisis, the response from public health departments, community-based agencies, schools and communities should be the highest priority. Other day-to-day programming, however, often is compromised. This categorical "disease of the day" approach is not efficient and often is not effective.

EVOLVING CHALLENGE #4: THE GENERATION M2

According to a 2010 report from the Kaiser Family Foundation,²³ 8 to 18-year olds ($N > 2000$) spend more time with media (i.e., television, iPods/MP3 devices, computers, video games, movies) than any other activity besides sleep—an average of more than seven-and-a-half hours per day; not including texting (on average, 90 minutes). Clearly, media are one of the most powerful forces in young people's lives today. Heavy media users are more likely to get fair to poor grades, get into trouble, and be sad, bored, and/or unhappy.

A game designer in education and learning²⁴ calls teens "digital natives," that is native speakers of technology, who become fluent

almost as quickly as each new multimedia technology becomes available. We, by the way, are the "digital immigrants," who have adopted many aspects of the technology, but just like those who learn another language later in life, we retain an "accent" because we still have one foot in the past. The challenge is "keeping up."

Social networking—Facebook, My Space, texting, blogging, twittering—has replaced face-to-face encounters. YouTube has become major source of "snippets" of all types of information and personal experiences and stories. Chatrooms have allowed pairs of random strangers to engage in webcam-based conversations. And the list goes on. Three questions come to my mind at this point. Can the collective intelligence of any social network provide accurate and reliable health information? Will the increase in use of technology and media shift the power and responsibility for learning about health from public and private schools and institutions of higher education to individual learners? Can the level of use of technology have an impact on a young person's overall health, academic achievement, ability to communicate effectively, manage stress, set personal goals and make informed decisions?

As we move forward into the 21st century to promote health literacy, particularly among youth, we cannot let what we have always done cloud what we need to do. I suspect I am not the only one who has kept her head in the sand about technology. I challenge every health educator, regardless of setting, to pay attention to the aforementioned challenges. We have done exceptional work. We need to effectively use the resources we have developed and design new strategies to reach today's youth and young adults. We need to change the way we work with youth, if we want them to be health-literate.

ADDRESSING EVOLVING CHALLENGE #1: UNDERSTANDING HEALTH LITERACY

First, each of us, as health educators, must truly understand health literacy in all its facets: what is it, what does it mean, how

it can be applied, what are existing perspectives, how can we empathize and how can we enhance our own self-awareness. We must truly understand adolescents and their culture. Much has been done to understand brain development and other changes that occur in adolescence. How can we better address developmental needs of youth in these challenging times? We must immerse ourselves in current literature outside of our discipline (i.e., what is happening in education, psychology, sociology and other fields of study). We must work harder at becoming culturally competent, particularly as it relates to youth. Yes, youth is a culture of its own. We must open our eyes and ears to see what they are doing and listen to what they are saying so we can better understand how young people think and survive. We must view diversity as a strength and view youth as resources rather than problems. Inclusion should be a goal and as we carefully examine what we have in place in schools

Related to professional preparation of those who will be working with individuals in multiple settings, particularly in our high schools, the standards are high. As part of the AAHE/NCATE Review of Initial Level Programs, health education teacher preparation programs are systematically reviewed and health education teacher candidates must provide evidence that they can effectively address the national health education standards, and most important, that youth have learned about critical health issues and developed essential skills to make health-promoting decisions. Unfortunately, the School Health Programs and Policy Study¹³ found that only 37% of middle and high school teachers have professional preparation in health education. We have expanded our efforts to ensure that those individuals teaching health education at the secondary level have either majors or minors in health education, and that those teaching school health education majors are up-to-date with "best practice" and are knowledgeable about resources at the national level. Last May, the Division of Adolescent and School Health and the American Cancer Society sponsored a higher education institute whose goals



were to update university professors about what was happening related to school health education at the national, state and local levels. Finally, let's not forget the importance of teaching our graduate students about "best practice" so when they begin their professional practice, we can continue to close the gap between preparation and practice.

What about our nearly 39 million elementary school students? There was a time in my earlier career when I believed we could and would have health education specialists in all elementary schools. I have not given up, but right now, we have to work within the existing context. According to 2000 NCATE standards for elementary teachers,²⁵ candidates will know and use major concepts in the subject of health education to create opportunities for student development and practice of skills that contribute to good health. This addition to the NCATE standards was a major coup for health education. So, what is happening or should happen within institutions for higher education to prepare elementary pre-service candidates to meet this standard? At Southern Illinois University Carbondale, we developed a new course entitled "Health Programs in Elementary School" that examines current health issues of elementary students, reviews the coordinated school health program as an approach to address those issues, focuses on "best practice" as described in our national health education standards, and helps pre-service elementary teachers identify and/or design strategies to integrate health concepts within other disciplines. Other universities are providing instruction within current elementary education coursework. Still, others are offering workshops or online experiences in an attempt to address NCATE standards. To address health literacy, however, we must assist elementary teachers so they can appropriately integrate health concepts within mathematics, science, language arts, social studies and other subjects.

ADDRESSING EVOLVING CHALLENGE #2: COMPETING INITIATIVES

Reauthorization of the Elementary and Secondary Education Act²⁶ under the

Obama administration focuses on: college and career-ready students, great teachers and great leaders, meeting the needs of English learners and other diverse learners, a complete education, successful, safe and healthy students, and fostering innovation and excellence. Again, who could argue with those objectives? The question remains, however, will health education as a curriculum area be elevated to the same levels as mathematics, science and other core curricula? Will educators in other roles understand the critical connection between health and academic achievement? Our efforts must focus on making that connection and sharing the research that shows that health education makes a difference in academic success.

Competitive grants made available as part of *A Blueprint for Reform* will provide funding for Promise Neighborhoods, 21st Century Community Learning Centers, and Successful, Safe, and Healthy Students.^{26(pp.32-33)} But, don't all youth in all schools deserve promise neighborhoods, community learning centers and healthy learning environments? Or, should select schools with grant writing expertise be given opportunities that other schools may not get.

Although the status of health education as a separate discipline is less than optimal, there are several promising events occurring to bring health into the comprehensive picture of school success. In January 2009, the National Education Association's Health Information Network sponsored a Symposium on Health literacy in the 21st Century.²⁷ The Association for Supervision and Curriculum Development focused its December 2009-January 2010 issue on Health and Learning. And, the Partnership for 21st Century Schools²⁸ identified health literacy as one of the 21st century themes.

While most educators acknowledge that students must arrive at school motivated and ready to learn, even more teachers and administrators are realizing that healthier students are better learners. I have realized over the years that we must let go of some our "health lingo" and "jump on the education bandwagon" of academic achievement.

ADDRESSING CHALLENGE #3: RESPONDING TO HEALTH CRISES

Multiple data sources indicate that today's learners most often do *not* arrive at school healthy and ready to learn. The typical classroom often has one or more students with personal crises (e.g., they are hungry, neglected, abused, depressed, mentally ill, alcoholics, children of alcoholics, drug abusers, pregnant, and the list goes on). Rather than a knee jerk response, we must establish systems to comprehensively address any crisis that may arise.

Coordinated school health (CSH) programs as described by Kolbe and Allensworth²⁹ more than 20 years ago can do just that. These eight components (health education, physical education, health services, counseling/psychological/social services, nutrition services, family/community involvement, healthy environment and staff wellness), when coordinated, are synergistic and have the potential to address current and future health issues affecting youth. CSHs are being implemented in many state and local education agencies across the country and they are making a difference. Health educators in all settings must share their successes and challenges. Regardless of setting we are in this together.

ADDRESSING CHALLENGE #4: GENERATION M2

The biggest challenge, I think, is how we can tap into Generation M2. If youth spend hours on end on cell phones, can we send health messages to their cell phones that will spark health literacy? In recent weeks, I came across a website called Text4Baby, which sends free messages to help young women through their pregnancy and their baby's first year. Could we send other health messages to teens on their iPhones? Can we put stories about teen's real life experiences on Flickr? Can we challenge teens to develop videos of personal health-related experiences and post them to YouTube? I am not a technological wizard, but I am challenging those of you who are to help technological laggards like me begin to explore how health-promoting messages can



be delivered in this digital world. We know health information alone does not work, but maybe some creative, relevant experiences minimally could arouse young people's interest in health—their own, their families and their communities.

We, as health educators, have our work cut out for us. We know from research and practice what needs to be done. We, as health education professionals in schools, communities, health-care settings, workplaces and universities, are an incredible resource if we work together. I believe we can promote health literacy in our youth despite these and other evolving challenges. "I believe that children are our future, teach them well and let them lead the way" (from Whitney Houston, "The Greatest Love of All").

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